



Queens World Trade Center Clinical Center of Excellence at Long Island Jewish Medical Center / Queens College

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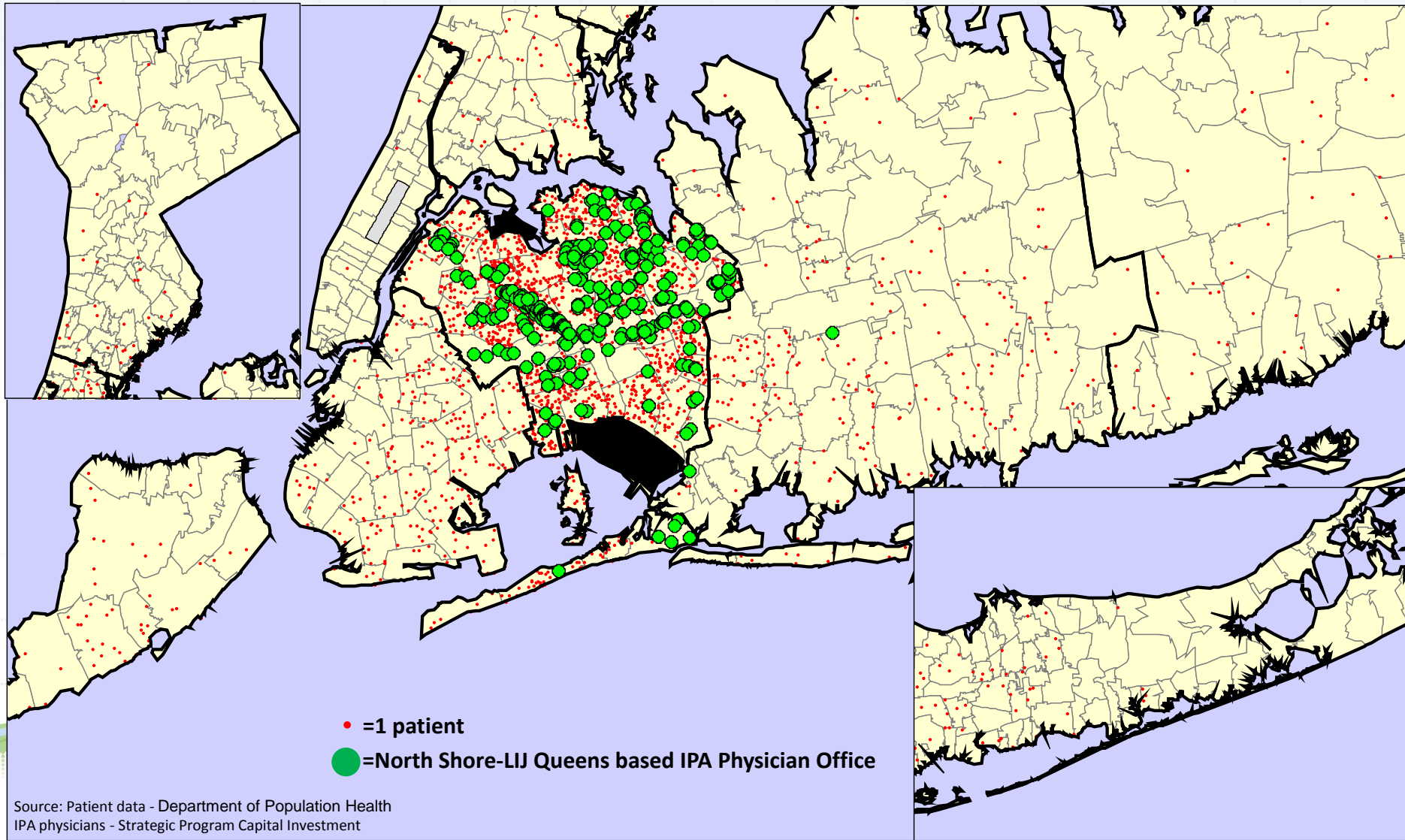
November 9, 2011



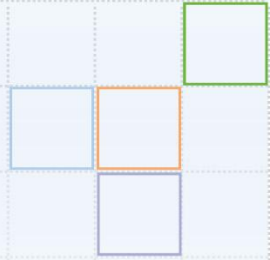
Total number in Cohort as of 9/30/11

- 3,243 Registered with Queens or transferred in
- 25 Deceased
- 333 Transferred Out
- 2,885 Total Cohort (Active and Inactive)
- 207 Not seen > 2.5 years
- 950 Never seen (lost to follow up/non responsive/no longer interested)
- 1,728 Active Monitoring

Patients Being Treated at World Trade Center Clinical Center of Excellence



Total number of patients in active treatment as of 9/30/11



- Total unique patients: 443
- Physical Health : 349
- Mental Health: 201

Total number of monitoring exams and treatment exams as of 9/30/11

- Monitoring: 5,891 (average 80-100 per month)
- Treatment: 2,739 (average 50-70 per month)
- Mental Health (External): 4,807
- SW Benefits: 910

Patient Distribution by Job Category

Job Category	Count
Construction	333
Law Enforcement	927
Civilian Public Sector	103
Technical/Utilities	82
Transportation	264
Cleaning/Maintenance	74
Volunteer	5
Firefighter	10
Healthcare	37
News Agency	2
Office/Professional	52
Federal Employee	20
Other	26
Retired	143
Not Employed	241
NULL	924
Total	3243

Multiple Myeloma in WTC Responders: A Case Study

Objectives: We report on cases of multiple myeloma (MM) observed in World Trade Center (WTC) responders registered in the WTC Medical Program. **Methods:** Possible cases of MM diagnosed between September 11, 2001, and September 10, 2007, in responders were confirmed if they met the World Health Organization and Mayo Clinic diagnostic criteria. **Results:** Among 28,252 responders of known sex and age, eight cases of MM were observed (6.8 expected). Four of these cases were observed in responders younger than 45 years at the time of diagnosis (1.2 expected). A slight deficit of MM cases was observed in responders older than 45 years (4 observed, 5.6 expected). **Conclusion:** In this case series, we observe an unusual number of MM cases in WTC responders under 45 years. This finding underscores the importance of maintaining surveillance for cancer and other emerging diseases in this highly exposed population. (J Occup Environ Med. 2009;51:896–902)

Multiple Myeloma in WTC Responders: A Case Study

- 8 cases of multiple myeloma identified out of 28,252 individuals (6.8 expected)
- Age distribution skewed with 4 patients under 45 (~1 expected)
- All 4 patients members of law enforcement

Possible Etiologies for Multiple Myeloma

- Benzene exposure
- Solvents
- PAH
- PCB
- Dioxin
- Metals
- Mixed Exposure

➤ Overall >150 compounds identified in dust samples

Further Cases of Multiple Myeloma Identified

- 2 <45 years
- 2 between 45-50 years
- 2 between 50-55 years
- 2 >55 years
- Overall 16 cases have been identified with 8 noted between September 2007 and December 2008 (overall incidence is 4.4/100,000 per year)
- Further linkage with NYS Cancer Registry underway

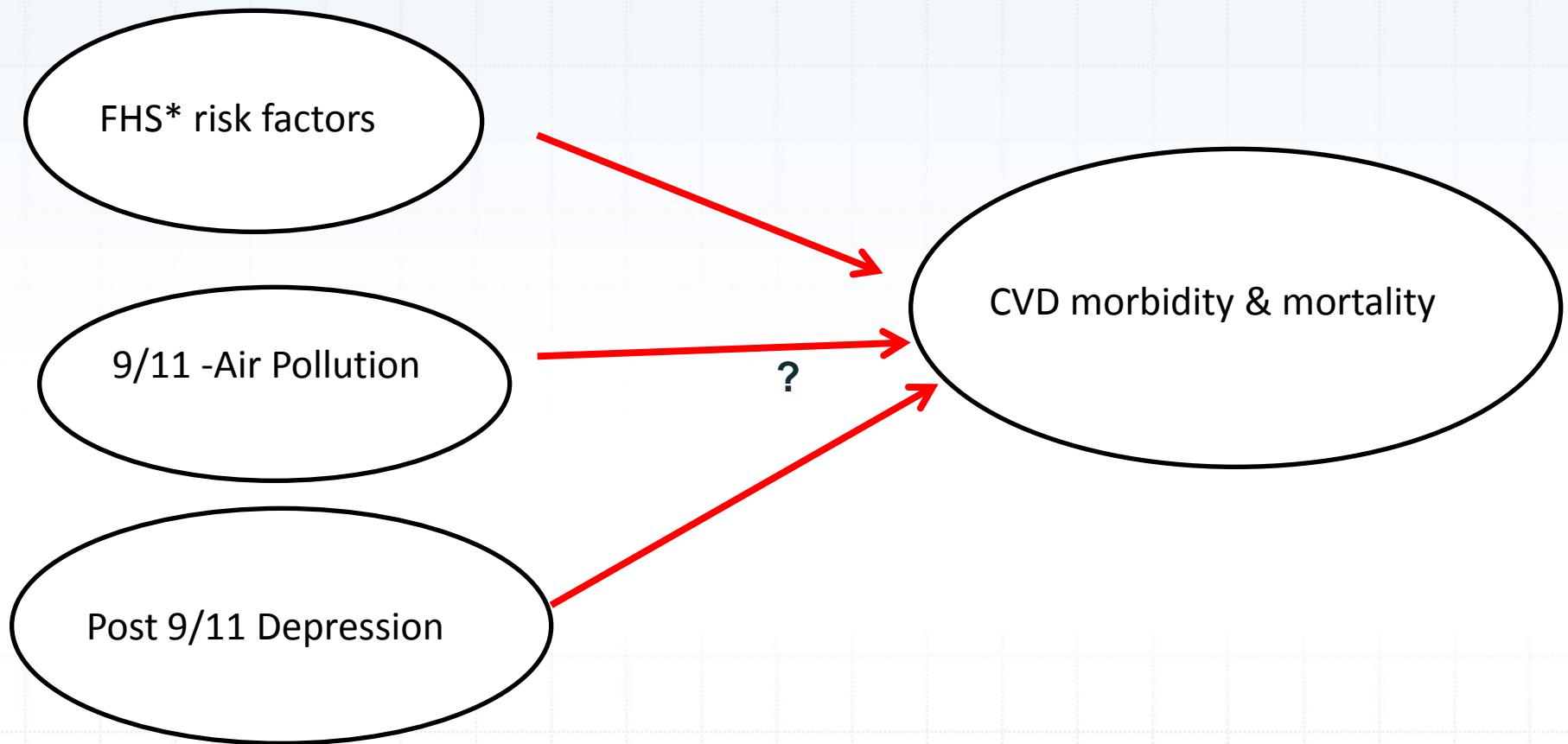
WTC-HEART



**Cardiovascular health impact and
prediction of incident CV events
among WTC responders**

CBNS, Queens College

Cohort Study: 2011-2014

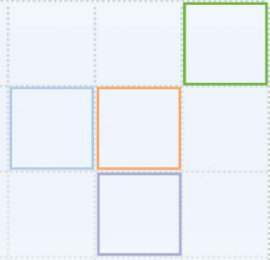


*Smoking, cholesterol, blood pressure, Diabetes, Rx

Evidence & Significance

- Air pollution is an important risk factor for CV morbidity and mortality.
- PTSD is an important risk factor for CV morbidity and mortality.
- Do they modify the CV morbidity and mortality risk over and beyond the FHS score?

Objective 1



- Does FHS risk score accurately estimate the WTC cohort's CHD risk for primary and subsequent cardiac events?

Objective 2

- Is there a need for a specific “WTC score” for CHD risk among WTC responders to guide cardiovascular prevention?

Objective 3

- Are WTC responders at higher CVD risk than other New York residents who were not directly exposed to the air pollution and mental stress at Ground Zero?

Specific aims 1

- Recruit 6,000 out of 7,500 WTCHP participants who are expected to undergo their annual monitoring exam over 12 months at the Mount Sinai and the North Shore-LIJ/Queens College sites of the WTC Health Program.

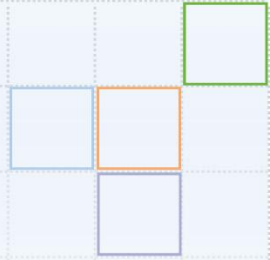
Specific aims 2

➤ Assessment of:

- CVD risk factors (blood pressure, height, weight, and blood lipids, CVD & Diabetes history, smoking)
- PCL score for PTSD
- WTC dust exposure

➤ Integrated in the usual clinical assessment at the WTCHP

Specific aims 3



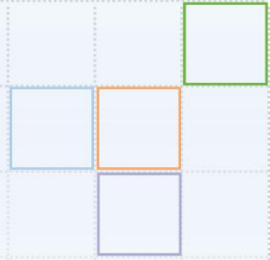
- Two-year follow-up
- Annual contact to monitor cardio- and neurological symptoms, hospitalizations; determine changes in functional status, quality of life, cognitive status, stroke risk factors and behaviors
- Medical records and SPARCS

Investigator Team



- CBNS/QC, CUNY:
 - A Morabia, S Markowitz
- Mount Sinai School of Medicine:
 - M Crane, L Crowley, MA McLaughlin
- North Shore-LIJ Health System:
 - J Moline
- Mailman SPH, Columbia:
 - M Desvarieux

Research Topics



➤ Sarcoidosis

- Elevated in all cohorts
- Research on etiology

➤ Multiple Myeloma and other cancers

- Ensure all cases identified are counted from Monitoring



Questions/Comments?